

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1–39. (Canceled)

40. (New) A computer implemented process for creating a database query comprising:

receiving a template which contains a necessary language for the database query and a plurality of placeholders, but lacks a plurality of clauses required for the database query to produce a desired output;

receiving a user entry of the plurality of fields, the plurality of filters, and a sort criteria;

responsive to receiving the user entry of the plurality of fields, the plurality of filters, and the sort criteria, retrieving a plurality of aliases for the plurality of fields and the plurality of filters from a column map of a database;

generating a SELECT clause within the plurality of clauses based on the plurality of fields;

generating an ORDER BY clause within the plurality of clauses based on the sort criteria;

generating a first portion of a WHERE clause within the plurality of clauses based on the plurality of filters;

creating a first list, which is initially empty;

creating a second list, which is initially empty;

determining whether each of the plurality of aliases is present in the first list;

responsive to a determination a first alias from the plurality of aliases is not present in the first list, performing steps comprising:

when the template contains a FROM placeholder among the plurality of placeholders, inserting the first alias with a matching table name into a FROM clause within the plurality of clauses;

when the template does not contain the FROM placeholder among the plurality of placeholders but contains a JOIN placeholder among the plurality of placeholders, inserting the first alias with a matching table name into a JOIN clause within the plurality of clauses;

when the template contains neither the FROM placeholder among the plurality of placeholders nor the JOIN placeholder among the plurality of placeholders, returning an error;

generating a second portion of the WHERE clause based on a joining condition for the first alias;

joining the first portion and the second portion of the WHERE clause;

adding the first alias to the first list;
adding the first alias and the second portion of the WHERE clause to the second list,
when the second portion of the WHERE clause depends on a second alias from the plurality of aliases;
determining whether each of the plurality of aliases in the second list is present in the first list;
responsive to a determination that a third alias is present in both the second list and the first list,
adding the third alias to the second portion of the WHERE clause;
replacing the plurality of placeholders with the plurality of clauses;
wherein the database query joins only a plurality of tables from the database necessary to
complete the query only when those aliases found in the first list and in the second list were added to the
second portion of the WHERE clause.